# IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION

WSOU INVESTMENTS, LLC, d/b/a BRAZOS LICENSING AND DEVELOPMENT,

Plaintiff,

v.

TP-LINK TECHNOLOGY CO., LTD,

Defendant.

CASE NO. 6:20-cv-01016

JURY TRIAL DEMANDED

# **COMPLAINT**

Plaintiff WSOU Investments, LLC d/b/a Brazos Licensing and Development ("Plaintiff" or "Brazos"), by and through its attorneys, files this Complaint for Patent Infringement against defendant TP-LINK Technology Co., Ltd. ("Defendant" or "TP-Link") and hereby alleges as follows:

## I. NATURE OF ACTION

- 1. This is a civil action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. §§ 1 *et seq.*, including §§ 271, 281, 283, 284, and 285. This action is brought to end Defendant's unauthorized and infringing manufacture, use, sale, offering for sale, and/or importation of methods and products incorporating Brazos's patented invention.
- 2. Brazos is the owner of all rights, title, and interest in and to US Patent No. 8,199,636 (the "'636 Patent" or the "Patent") including all rights to recover for all past and future infringement thereof.
- 3. Upon information and belief, Defendant has been and currently is infringing, contributing to the infringement of, and/or inducing the infringement of Brazos's Patent, by,

among other things, making, using, selling, importing, and/or offering for sale, within the territorial boundaries of the United States and the State of Texas, products that are covered by one or more claims of Brazos's Patent and inducing such conduct by others.

4. Defendant manufactures, provides, sells, offers for sale, imports, and/or distributes Infringing Products (as defined herein) and services; and/or induces others to make and use of its Infringing Products and services in an infringing manner; and/or contributes to the making and use of Infringing Products and services by others, including its customers, who directly infringe the Patent.

## II. THE PARTIES

- 5. Plaintiff WSOU Investments, LLC d/b/a Brazos Licensing and Development is a limited liability corporation organized and existing under the laws of Delaware, with its principal place of business at 605 Austin Avenue, Suite 6, Waco, Texas 76701.
- 6. Upon information and belief, Defendant TP-LINK Technology Co., Ltd. is a corporation organized and existing under the laws of China, with a place of business located at South Building, No. 5 Keyuan Road, Science and Technology Park, Nanshan District, Shenzhen, Peoples Republic of China.
- 7. TP-LINK Technology Co., Ltd. may be served with process by serving the Texas Secretary of State, James E. Rudder Building, 1019 Brazos Street, Austin, Texas 78701, as its agent for service because it engages in business in Texas but has not designated or maintained a resident agent for service of process in Texas as required by statute. This action arises out of that business.
- 8. Defendant manufactures and distributes electronics. Defendant, either itself and/or through the activities of its subsidiaries or agents, makes, uses, sells, offers for sale, and/or imports

throughout the United States, including within this District, computer networking products that infringe the Asserted Patent, defined below.

## III. JURISDICTION AND VENUE

- 9. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a). Alternatively, this Court has jurisdiction over Defendant under Fed. R. Civ P. 4(k)(2) ("Federal Claim Outside State-Court Jurisdiction").
- 10. This Court has specific and general personal jurisdiction over TP-Link pursuant to due process and/or the Texas Long Arm Statute, Tex. Civ. Prac. & Rem. Code § 17.042, because (1) TP-Link has committed and continues to commit acts of patent infringement, including acts giving rise to this action, within the State of Texas and this Judicial District; (2) TP-Link has committed and continues to commit acts of patent infringement in the State of Texas, including making, using, offering to sell, and/or selling accused products in Texas, and/or importing accused products into Texas, inducing others to commit acts of patent infringement in Texas, and/or committing at least a portion of any other infringements alleged herein.
- 11. The Court's exercise of jurisdiction over TP-Link would not offend traditional notions of fair play and substantial justice because TP-Link has established minimum contacts with the forum. For example, on information and belief, TP-Link has committed acts of infringement in this Judicial District, directly and/or through intermediaries, by, among other things, making, using, offering to sell, selling, and/or importing products and/or services that infringe the Asserted Patent, as alleged herein. TP-Link has purposefully and voluntarily placed infringing products into the stream of commerce by shipping infringing products through established distribution channels into the State of Texas, knowing or expecting that the Infringing Products would be shipped into Texas.

- 12. Upon information and belief, TP-Link has continuous and systematic business contacts with the State of Texas. TP-Link, directly and/or through affiliates and/or intermediaries, conducts its business extensively throughout the State of Texas, by shipping, importing, manufacturing, distributing, offering for sale, selling, and/or advertising its products and services in the State of Texas and this Judicial District. TP-Link interacts with subsidiaries, distributors, resellers and/or customers who sell the infringing products into Texas, knowing or expecting that these subsidiaries, distributors, resellers and/or customers will then sell the Infringing Products into the State of Texas, either directly or through intermediaries.
- 13. Venue in the Western District of Texas is proper pursuant to 28 U.S.C. §§ 1391 (c)(3) which provides that "a defendant not resident in the United States may be sued in any judicial district, and the joinder of such a defendant shall be disregarded in determining where the action may be brought with respect to other defendants."
- 14. Venue is proper in this Court pursuant to 28 U.S.C. § 1400(b). TP-Link has transacted business in this Judicial District and has committed acts of direct and indirect infringement in this Judicial District by, among other things, importing, offering to sell, and selling products that infringe the Patent.
- 15. Upon information and belief, TP-Link designs, manufactures, uses, imports into the United States, sells, and/or offers for sale in the United States products that infringe the Asserted Patent, directly and or through intermediaries, as alleged herein. TP-Link markets, sells, and/or offers to sell its products and services, including those accused herein of infringement, to actual and potential customers and end-users located in the State of Texas and in this Judicial District, as alleged herein.

# **COUNT ONE**INFRINGEMENT OF U.S. PATENT NO. 8,199,636

- 16. Brazos re-alleges and incorporates by reference the preceding paragraphs 1-15 of this Complaint.
- 17. On June 12, 2012, the U.S. Patent & Trademark Office duly and legally issued U.S. Patent No. 8,199,636, entitled "Bridged network System with traffic resiliency upon link failure."
- 18. Brazos is the owner of all rights, title, and interest in and to the '636 Patent, including the right to assert all causes of action arising under the '636 Patent and the right to any remedies for the infringement of the '636 Patent.
  - 19. For example, claim 1 of the '636 Patent states:

A bridged network system, comprising:

a plurality of nodes;

wherein each node in the plurality of nodes is coupled to communicate with at least one other node in the plurality of nodes;

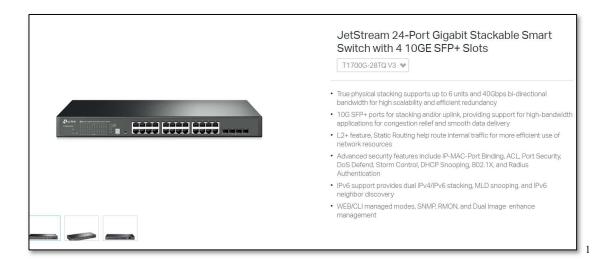
wherein the plurality of nodes comprise a bridge network between external nodes located externally from the plurality of nodes; and

wherein each node of the plurality of nodes is operable to perform the steps of: receiving a packet, wherein the packet comprises a route indicator field further comprising one or two bits that indicates a route;

responsive to the packet being received prior to a time of failure along a communication link between two of the plurality of nodes, transmitting the packet along a first route in the system to another node in the plurality of nodes; and

responsive to the packet being received after a time of failure along a communication link between two of the plurality of nodes and in response to a change of state of the one or two bits in the route indicator field to indicate an alternate route should be used as a result of a link failure, accessing an internal bypass table to retrieve a second route and transmitting the packet along the second route in the system to another node in the plurality of nodes, wherein the second route differs from the first route and is stored prior to the time of failure and wherein the change of state of the one or two bits is performed by one of the nodes that is responsible for detecting the link failure and for receiving and transmitting the packet.

- 20. TP-Link's Accused Products meet every limitation of claim 1 of the '636 Patent, as well as other claims of the '636 Patent.
- 21. TP-Link makes, uses, sells, offers for sale, imports, and/or distributes in the United States, including within this Judicial District, networking products such as High-Speed Cable Modems, wireless routers, ADSL, range extenders, routers and switches, and other devices like IP cameras, powerline adapters, print servers, media converters, wireless adapters, power banks, mobile phones, and SMART home technology devices.
- 22. TP-Link makes, uses, sells, offers for sale, imports, and/or distributes in the United States, including within this Judicial District, products that use features to provide data transmission and device priority to mobile units, including but not limited to TP-Link JetStream 24-Port Gigabit Stackable Smart Switch (T1700G-28TQ) and products that operate in a substantially similar manner (collectively, the "Accused Products").
- 23. The Accused Products are capable of providing features of Static Routing, Abundant L2 failovers, Robust security strategies, Comprehensive QoS features, and more to connect multiple Stackable devices through their StackWise ports, forming a Stack that works as a unified system and presents as a single entity to the network in Layer 2 and Layer 3 protocols. This enables multiple devices to collaborate and be managed as a whole, which improves the performance and simplifies the management of the devices efficiently.
- 24. TP-Link instructs its users to use these features by advertising them on the Overview page of the Accused Products' webpages.



- 25. The Accused Products can be connected to each other in a bridge network system and with various external networks.
- 26. In a bridge network system, switches (bridges) use Bridge Protocol Data Units (BPDUs) to communicate with each other and to share information about the bridges.
- 27. The Accused Products support Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP) and Multiple Spanning Tree Protocol (MSTP).
- 28. TP-Link instructs its users to use Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP) and Multiple Spanning Tree Protocol (MSTP).

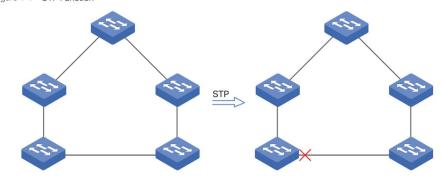
<sup>&</sup>lt;sup>1</sup> https://www.tp-link.com/us/business-networking/smart-switch/t1700g-28tg/#overview

#### STP

STP (Spanning Tree Protocol) is a layer 2 Protocol that prevents loops in the network. As is shown in Figure 1-1, STP helps to:

- Block specified ports of the switches to build a loop-free topology.
- Detect topology changes and automatically generate a loop-free topology.

Figure 1-1 STP Function



#### **RSTP**

RSTP (Rapid Spanning Tree Protocol) provides the same features as STP. But RSTP also provides much faster spanning tree convergence.

#### **MSTP**

MSTP (Multiple Spanning Tree Protocol) also provides the fast spanning tree convergence as RSTP. In addition, MSTP enables VLANs to be mapped to different spanning trees (MST instances), and traffic in different VLANs will be transmitted along their respective paths, implementing load balancing among VLANs.

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- 29. The Accused Products communicate information with other switches in their bridge network system using Bridge Protocol Data Units (BDBUs).
  - 30. TP-Link instructs users on the type of information that BDBUs can carry.

## **BPDU**

The packets used to generate the spanning tree. The BPDUs (Bridge Protocol Data Unit) contain a lot of information, like bridge ID, root path cost, port priority and so on. Switches share these information to help determine the tree topology.

31. The Accused Products, connected together forming a network, can be connected to an external network via a bridge.

<sup>&</sup>lt;sup>2</sup> https://static.tp-link.com/T1700G-28TQ(UN) V2 UG 1478835969746l.pdf

<sup>&</sup>lt;sup>3</sup> https://static.tp-link.com/T1700G-28TQ(UN) V2 UG 1478835969746l.pdf

- 32. The Accused Products in a bridged network system generate a TCN (topology change notification) BPDU (bridge protocol data unit) and send that TCN BDPU from its root port to an upstream switch when a topology change is discovered due to, for example, a link or bridge failure.
  - 33. TP Link instructs users on how ports change in cases of failure.

In RSTP/MSTP, the alternate port is the backup for the root port. It is blocked when the root port works normally. Once the root port fails, the alternate port will become the new root port.

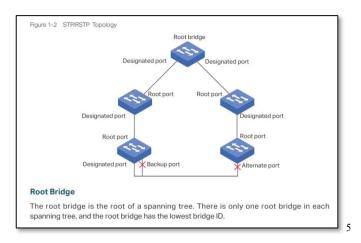
In STP, the alternate port is always blocked.

Backup Port

If a port is not selected as the designated port for it receives better BPDUs from the switch it belongs to, it will become an backup port.

In RSTP/MSTP, the backup port is the backup for the designated port. It is blocked when the designated port works normally. Once the root port fails, the backup port will become the new designated port.

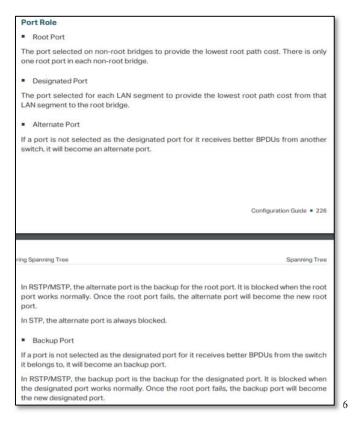
- 34. The RSTP topology comprises of several bridges and a root bridge. Each bridge has a root port, designated port, alternate port, and backup port. The root port is the port that is connected to the root bridge while the designated port connects to the non-root bridges.
  - 35. TP-Link instructs the users how the RSTP topology is structured as follows.



<sup>&</sup>lt;sup>4</sup> https://static.tp-link.com/T1700G-28TQ(UN) V2 UG 1478835969746l.pdf

<sup>&</sup>lt;sup>5</sup> https://static.tp-link.com/T1700G-28TQ(UN) V2 UG 1478835969746l.pdf

- 36. The Accused Products' bridges in an RSTP network are capable of having one or more of the following ports assigned: Root Port, Designated Port, Alternate Port, and Backup Port.
- 37. These ports are designated based on the root path cost or the BPDUs received. A port can also be an Edge Port. An Alternate Port is a backup for the root port, while the Backup Port is a backup for a Designated Port.
  - 38. TP-Link instructs its users on the various port assignments, including Edge Ports.



Edge Port

Enable or disable Edge Port. By default, it is disabled.

The edge port can transit its state from blocking to forwarding directly. If the port is connected to an end device, like a PC, it is recommended to set the port as an edge port.

<sup>&</sup>lt;sup>6</sup> https://static.tp-link.com/T1700G-28TQ(UN) V2 UG 14788359697461.pdf

<sup>&</sup>lt;sup>7</sup> https://static.tp-link.com/T1700G-28TQ(UN) V2 UG 1478835969746l.pdf

- 39. TP-Link has received notice and actual or constructive knowledge of its infringement of the '636 Patent no later than the date of service of this Complaint.
- 40. Since at least the date of service of this Complaint, through its actions, TP-Link has actively induced product makers, distributors, retailers, and/or end users of the Accused Products to infringe the '636 Patent throughout the United States, including within this Judicial District, by, among other things, advertising and promoting the use of the Accused Products in various websites, including providing and disseminating product descriptions, operating manuals, and other instructions on how to implement and configure the Accused Products. Examples of such advertising, promoting, and/or instructing include web advertising, 8 user guides, 9 and support forum postings. 10
- 41. TP-Link was and is aware that the normal and customary use by end users of the Accused Products infringes the '636 Patent. TP-Link's inducement is ongoing.
- 42. Brazos has suffered damages as a result of TP-Link's direct and indirect infringement of the '636 Patent in an amount adequate to compensate for TP-Link's infringement, but in no event less than a reasonable royalty for the use made of the invention by TP-Link, together with interest and costs as fixed by the Court.
- 43. Defendant continued to make, use, sell and/or import Infringing Products, to induce others to engage in such conduct, and/or to contribute to others engaging in such conduct despite knowing that its actions constituted infringement of a valid patent.
- 44. Accordingly, Defendant acted egregiously and/or knowingly or intentionally when it infringed the '636 Patent.

<sup>&</sup>lt;sup>8</sup> https://www.tp-link.com/us/business-networking/smart-switch/t1700g-28tq/#overview

<sup>&</sup>lt;sup>9</sup> https://static.tp-link.com/T1700G-28TQ(UN) V2 UG 1478835969746l.pdf

<sup>10</sup> https://www.tp-link.com/us/support/faq/887/

## IV. JURY DEMAND

45. Plaintiff Brazos hereby demands a jury on all issues so triable.

# V. REQUEST FOR RELIEF

WHEREFORE, Plaintiff Brazos respectfully requests that the Court:

- (a) enter judgment that TP-Link infringes one or more claims of the '636 Patent literally and/or under the doctrine of equivalents;
- (b) enter judgment that TP-Link has induced infringement and continues to induce infringement of one or more claims of the '636 Patent;
- (c) enter judgment that TP-Link has contributed to and continues to contribute to the infringement of one or more claims of the '636 Patent;
- (d) award Brazos damages, to be paid by TP-Link in an amount adequate to compensate Brazos for such damages, together with pre-judgment and post-judgment interest for the infringement by TP-Link of the '636 Patent through the date such judgment is entered in accordance with 35 U.S.C. § 284, and increase such award by up to three times the amount found or assessed in accordance with 35 U.S.C. § 284;
  - (e) declare this case exceptional pursuant to 35 U.S.C. § 285; and
- (f) award Brazos its costs, disbursements, attorneys' fees, and such further and additional relief as is deemed appropriate by this Court.

Dated: October 31, 2020 Respectfully submitted,

By: /s/ Raymond W. Mort, III

Raymond W. Mort, III

Texas State Bar No. 00791308

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